



Transportation Synthesis Report

Nina McLawhorn
Research Administrator
Wisconsin Department of Transportation
608-266-3199
nina.mclawhorn@dot.state.wi.us

Mainstreaming Operations into DOT Planning

Prepared for
Bureau of Highway Operations
Division of Transportation Infrastructure Development

Prepared by
CTC & Associates LLC
WisDOT RD&T Program
July 13, 2005

Transportation Synthesis Reports (TSRs) are brief summaries of currently available information on topics of interest to WisDOT technical staff. Online and print sources include NCHRP and other TRB programs, AASHTO, the research and practices of other state DOTs, and related academic and industry research. Internet hyperlinks in TSRs are active at the time of publication, but changes on the host server can make them obsolete.

Request for Report

Systems operations and management is already considered a mission priority by many state DOTs. However, the several types of operations-related activities – ranging from ITS to maintenance or traffic – are stovepiped and decentralized in most state DOTs. In most cases, there appears to be no common departmentwide policy framework around which to organize for efficient integration of services and sustainable funding.¹

¹Managing Change in State Departments of Transportation: Scan 3 – Innovations in Institutionalization of Operations
NCHRP Web Document 39, May 2001; PDF page 5 [http://gulliver.trb.org/publications/nchrp/nchrp_w39-3.pdf].

The combination of increased travel demand and the need for organizational change have resulted in the identification of operations as a subject for the study of institutional change within state DOTs.² The RD&T Section was asked to report on ways that DOTs are mainstreaming ITS and other operations functions into the overall planning, programming and budgeting functions of their departments. Of particular interest would be documents, flow charts, processes or performance measures that agencies are using to carry out an integrated planning effort that can compare different investment scenarios.

²Ibid.; PDF page 13 [http://gulliver.trb.org/publications/nchrp/nchrp_w39-3.pdf].

Summary

We located helpful information on the Florida, Michigan, Minnesota and Virginia DOT Web sites, and by contacting staff at the Arizona, Nebraska, Texas and Washington State DOTs. For two states, we located guidance documentation for integrating Operations functions:

- **Florida:** The ITS Strategic Plan, adopted in 1999 and regularly updated, assures that Intelligent Transportation Systems are considered at all levels of planning, production, operations and management. The plan includes Guiding Principles for planning and development, and finance.
- **Minnesota:** The ITS Strategic Plan 2000 represents the Minnesota Guidestar Board of Directors guide for implementation of an integrated statewide program for ITS. Goals include expanding ITS outreach and education efforts, and mainstreaming ITS into the statewide transportation planning and implementation process.

Arizona monitors several ITS-related areas for performance, and the results factor in to the department's strategic plan prepared for the legislature. **Michigan** is in the second year of including ITS as an option for submission of projects in response to the department's annual call for projects, a major step in the direction of integration. **Nebraska** Operations & Maintenance is developing a cooperative relationship with the infrastructure divisions in project planning, and will be looking more closely at the issue of ITS performance measures. In **Texas**, ITS related projects compete with all other projects for federal and state funding, and ITS components are often included in

urban freeway improvement (major construction) projects. **Virginia's Smart Travel Implementation Framework** discusses the relationship between facility management and construction improvement: "ITS solutions can be a part of the larger transportation project to alleviate a network deficiency." **Washington State** is initiating organizational changes aimed in part at better integrating ITS into the standard business of the organization.

Following the state summaries we cite the FHWA report entitled *Integrating Intelligent Transportation Systems Within the Transportation Planning Process: An Interim Handbook*. The handbook, available online, identifies and describes ways that ITS should be integrated with the mainstream transportation planning process, and provides specific guidance and resources in conducting ITS planning associated with metropolitan and statewide transportation plans, major investment studies, other corridor and sub-area studies, region-wide strategic assessments of ITS and related ITS planning activities.

Arizona

Tim Wolfe, Assistant State Engineer for Transportation Technology

Email: TWolfe@azdot.gov; phone: 602-712-6622.

The Arizona DOT Transportation Technology Group (TTG) monitors several ITS-related areas for performance. (See attached file, *Transportation Technology Group*, pages 3 through 10: Performance Measurement Descriptions.) The areas include incident response time, the traveler information (511) Web system, and field devices such as VMS. Performance in these areas is tracked monthly. The results are rolled into TTG's quarterly report, and are ultimately discussed in AZDOT's annual strategic plan for the state legislature. "We do not have a good handle yet on performance measures related to congestion mitigation," Tim said, "and I think most states are encountering the same challenge. The Texas Transportation Institute has performed studies in this area and we've been contributing some data to their efforts." (See <http://tti.tamu.edu/inside/hdv/ama/perf%5Fmeasures/index.stm> for TTI ITS benefits and evaluation studies.)

Florida

Intelligent Transportation Systems

Vision, Guiding Principles, Goals and Objectives

FDOT Traffic Engineering & Operations

<http://www.dot.state.fl.us/trafficoperations/its/Online%20Documents/documents/Vision%20and%20Goals.htm>

Scroll to: Florida's ITS Vision

Florida's ITS Strategic Plan, first adopted in 1999 and updated regularly since, assures that Intelligent Transportation Systems are considered at all levels of planning, production, operations and management, providing improvements in safety, mobility and economic vitality to maximize the investment in Florida's multi-modal transportation system.

Guiding Principles for Planning and Development include:

- Promote institutional and inter-jurisdictional cooperation and coordination in the planning, deployment, operations, management and maintenance of ITS infrastructure. Include ITS in all regional and statewide processes for transportation infrastructure planning, development and maintenance, emergency operations planning and management, and system operations and management; optimize cooperation and coordination among key stakeholders, both "vertical" (FDOT, local government, MPOs) and "horizontal" (transit and toll authorities, police, fire, emergency management services, etc.)
- Integrate ITS planning and ITS-related operations planning with statewide, metropolitan, authority and local government planning processes; incorporate ITS plans with Long Range Transportation (LRTP) and with State Implementation Plans (SIP), Transportation Improvement Program (TIP), Congestion Management System (CMS) Transportation System Management (TSM), activities, etc.
- Support concurrency / growth management program - use ITS as means of both monitoring and supporting program objectives; maximize the use of ITS developed data as a resource for other planning needs.

Guiding Principles for Finance include:

- Leverage value of "conventional" capital investment in roadway and transit improvements through ITS features that improve operational efficiency.

Florida's ITS Planning Guidelines

Integration of ITS Into the Transportation Planning Process

http://www.co.palm-beach.fl.us/MPO/pdf/FDOT_Publications/florida%20ITS%20planning%20guidelines.pdf

Scroll to: PDF page 53- Chapter 4, Role of ITS in Corridor Studies

Following the procedures outlined in the Florida Intrastate Highway System Handbook and based on the level of detail required for the particular corridor plan, ITS can be introduced early on in the planning process... ITS user services may not be the sole solution to the capacity problem of a transportation corridor or sub-area. However, utilizing the appropriate mixture of ITS user services can increase the efficiency and enhance the safety of the system. In some cases the decision to utilize ITS applications along a section of the corridor instead of widening the highway can prove to be a more efficient option.

Chapter highlights include:

**** 4.2: Steps for Incorporating ITS into Corridor Studies --**

The challenge to incorporating ITS into corridor plans can be particularly clear in the alternatives evaluation portion of the process. A study prepared for Virginia DOT on the I-64 corridor study³ provides an example of where a traditional planning study was modified to incorporate specific analytical and modeling procedures necessary to evaluate ITS improvements. The following procedures are excerpted from the study as key steps used to incorporate ITS into the corridor study evaluation process:

- Select measures of effectiveness that could be applied to all transportation modes and types of improvements. Include measures of effectiveness that highlight the performance of ITS strategies.
- Collect field traffic and roadway geometry data.
- Use traditional travel demand forecasting models to predict corridor demand.
- Apply “industry-standard” techniques to validate travel demand, estimate modal shifts, and develop peak hour volumes necessary to support conceptual design assumptions.
- Develop an integrated “macroscopic” traffic operations modeling framework to test the performance of ITS strategies as well as traditional roadway capacity/design improvements and management strategies.
- Establish the sequence of computational procedures for the traffic operations modeling framework.
- Analyze and test successive layers of ITS improvements before deciding which strategies should be carried forward into final evaluation.
- Develop cost estimates for the ITS strategies.
- Develop and present final evaluation results for the corridor alternatives.

³Integrating ITS and Traditional Planning-Lessons Learned I-64 Corridor Study
Parsons Brinckerhoff and Associates, Federal Highway Administration, 1998.

**** 4.3: Examination of Corridor Transportation Needs --**

- Goals and objectives should also be specified in an ITS context. Emphasizing such issues as increasing system efficiency, safety enhancements, added capacity with minimum intrusions, minimum environmental and social impacts, providing current information to traveler, etc.
- Setting qualitative and quantitative criteria for evaluation. Evaluation is done not only to compare a set of ITS strategies to another, but also to compare alternatives with or without ITS components.
- Analysis tools for evaluation of alternatives that are available for use in corridor studies include: travel demand model, traffic simulation, sketch planning, emissions inventory models and carbon monoxide hot spot model.
- Evaluation criteria are created through extensive multiagency discussions and public involvement process.

**** 4.5: Alternatives Analysis- Transportation Impacts --**

- Forecasting impacts of ITS can be accomplished using previously described planning analysis tools (section 1.3.7): SCRITS and IDAS.
- Another practical methodology for evaluation, as documented in the Seattle I-5 North Corridor Study, is the Process for Regional Understanding and Evaluation of Integrated ITS Networks (PRUEVIIN).⁴ PRUEVIIN is a modeling and simulation tool for assessing the sub-area response to time-varying conditions and the impact of real-time traveler information, along with more traditional corridor/regional improvements.

⁴Incorporating ITS into Corridor Planning: Seattle Case Study, Executive Summary, Final Report. Center for Telecommunications and Advanced Technology, Virginia. Federal Highway Administration, August 1999.
Published at <http://www.itsdocs.fhwa.dot.gov/jpodocs/edlbrow/7c01!.pdf>.

- Further research is being conducted to document evaluation methodologies used in different case studies.

Michigan

ITS Overview

http://www.michigan.gov/mdot/0,1607,7-151-9621_11041-50156--,00.html

Scroll to: Additional MDOT ITS Initiatives

10. Integrating ITS into the MDOT transportation planning process. Steps are being taken regarding the integration of ITS into the mainstream planning process of MDOT. For example, this is the second year of inclusion of ITS as

an option for submission of projects in response to the department's annual call for projects, a major step in the direction of integration. This effort puts MDOT among the leaders in the nation. Other actions are being taken. For further information regarding this initiative contact: James Schultz, Intelligent Transportation Systems, Bureau of Transportation Planning, Michigan Department of Transportation: phone 313-256-9800, email SchultzJ3@michigan.gov.

Minnesota

ITS Strategic Plan 2000

<http://www.dot.state.mn.us/guidestar/pdf/stratplan2000.pdf>

This plan represents the Minnesota Guidestar Board of Directors' guide for implementation of an integrated statewide program for Intelligent Transportation Systems.

Highlights include:

-- Goal 1 (page 6). *Expand ITS Outreach and Education Efforts:*

If ITS is to be mainstreamed and become accepted as an integral component of the transportation system and everyday activity, an effort needs to be undertaken to promote its benefits. Three groups are particularly important --

(a) The general public: Needs to understand how ITS benefits their every-day travel, particularly in terms of safety, travel-time savings and providing better information about transportation choices.

(b) Agencies and institutions: Not all institutions that have a role in implementing ITS enjoy the same level of awareness or commitment to ITS. Furthermore, not all departments within agencies and institutions have a similar level of understanding of the potential benefits of ITS or of the need for supporting ITS implementation.

(c) Policymakers and legislators: Are in a position to make key funding, regulatory and administrative decisions that can affect whether and how ITS programs are implemented.

The Board needs to provide direction to others on how to go about reaching key individuals in these groups. And, once identified, the Board can take the initiative in identifying available information and materials (e.g., materials developed by the Intelligent Transportation Society of America, ITS Minnesota and others) for use in conducting outreach programs to educate the target groups about the benefits of ITS.

-- Goal 4 (page 7). *Mainstream ITS into the Statewide Transportation Planning and Implementation Process:*

...The concept of ITS is not universally understood by the public, policymakers and even by all elements within transportation agencies. As a result, mainstreaming of ITS will require increasing education and dissemination efforts on all fronts. As large-scale, statewide deployments become more common, it is anticipated that the private sector will play an increasing role in ITS promotion and education efforts, and in the development of products and services. Steps need to be taken to facilitate this transition.

-- Implementation Issues (page 9). This section examines six impediments to ITS implementation in the state, including *Funding ITS Deployment, Operation and Maintenance:*

Mainstreaming of ITS, which is a necessary next step, will require that ITS projects compete for limited funds with more traditional transportation systems and services. Furthermore, as the number of ITS projects deployed increases, the operation and maintenance costs associated with these projects will need to be funded up-front and on an ongoing basis. This is different from past Operational Tests, where operation and maintenance costs were funded as part of the overall test and ceased once the operational test was completed.

Nebraska

Mike Mattison, Operations and Maintenance Engineer

Email: MichaelMattison@dor.state.ne.us; phone: 402-479-4878.

The state's ITS Strategic Plan identified a near-term need for a network of transportation operations centers. The implementation design features district centers, backed up by a statewide center serving as a central hub, that will enable data collection, processing, aggregation, monitoring, storage and dissemination of data and information necessary to achieve effective and coordinated statewide management of transportation facilities.

Mike told us that three district centers are currently under development, which includes integrating ITS into their operations. "An important goal is to have field devices such as traffic cameras and RWIS and their data be immediately available to operators in the centers," Mike said. "One of the new facilities, in Omaha, will be shared by the Department of Roads and the Nebraska State Patrol. Part of the thinking here is to put the Patrol in touch with ITS technology, and increase their awareness of ITS and other O&M developments taking place in NDOR.

"O&M is continuing to develop a cooperative relationship with the infrastructure divisions in project planning. If a new roadway would benefit from ITS electronics, or a bridge deck should have de-icing technology, we feel we can

work together to bring these kinds of capabilities into planning. Joint planning early on can save considerable time and money by not having to alter or augment infrastructure that's already been built.

"We'll be looking more closely at the issue of ITS performance measures. In the scheme of things, it keeps popping up, and we don't currently have something in place that we're happy with."

Texas

Al Kosik, Engineer of Traffic Management

Email: AKOSIK@dot.state.tx.us; phone: 512-506-5101.

"In TxDOT, we believe that ITS has been effectively mainstreamed into the department's planning and budgeting functions. ITS related projects compete with all other projects for funding (federal and state). In addition, ITS components are often included in urban freeway improvement (major construction) projects or ITS projects are let as separate jobs.

"The only funding that has been available exclusively for ITS projects are a few federal ITS earmarks.

"In addition, for quite some time, when urban freeways are expanded or reconstructed, conduits and pull boxes for future ITS elements are usually included in these projects.

"To my knowledge, TxDOT does not use any specific documents [e.g. flow charts, processes or other descriptions] in carrying out an integrated planning effort that can compare different investment scenarios. However, when TxDOT does a major investment study of an urban freeway for instance, the planning and study process compares many different alternatives, and includes ITS as an option. These requirements are generally defined in the contract documents for the study contractor.

"No formal performance measures are typically required. However, a research study performed by Texas Transportation Institute several years ago reviewed ITS benefits in detail, and showed both measurable benefits and some more qualitative benefits that are difficult to put a value on. The results were presented to our Administration as a justification for deploying ITS."

Virginia

VDOT Smart Travel Implementation Framework: Final Draft, June 2004

<http://www.virginiadot.org/infoservice/resources/prog-smarttravel-framework04.pdf>

Scroll to: PDF page 18- 3.2 Smart Travel Programming

Through the COOs (Concepts of Operation), a District action plan and resource needs are identified to construct, operate and maintain the Smart Travel Program (at all levels – District, Region/Corridor and Statewide). This is one means by which a project is identified to potentially be programmed.

Two other types of projects need to be considered when budgeting for ITS:

- Considering facility management along with construction improvement. ITS solution can be a part of the larger, transportation project to alleviate a network deficiency. The projects with ITS solution to a particular transportation network can compete with other projects while applying the criteria to compile the prioritized list.
- Considering ITS as interim solution between the duration of the prioritization of the project and its funding allocation. This interim solution can act as a temporary solution (until the planning and construction of the project) to alleviate the transportation deficiency until the project is completed. Even after the completion of the project, ITS solution can add to improve the efficiency of the project.

These two types of ITS projects become known through the VDOT highway planning and programming process, undertaken on yearly basis. Figure 3.2 (below) provides a summary of the VDOT highway planning and programming process. It also depicts how all three types of projects are fed into and out of the ITS budget process. District ITS budgeting is also completed yearly.

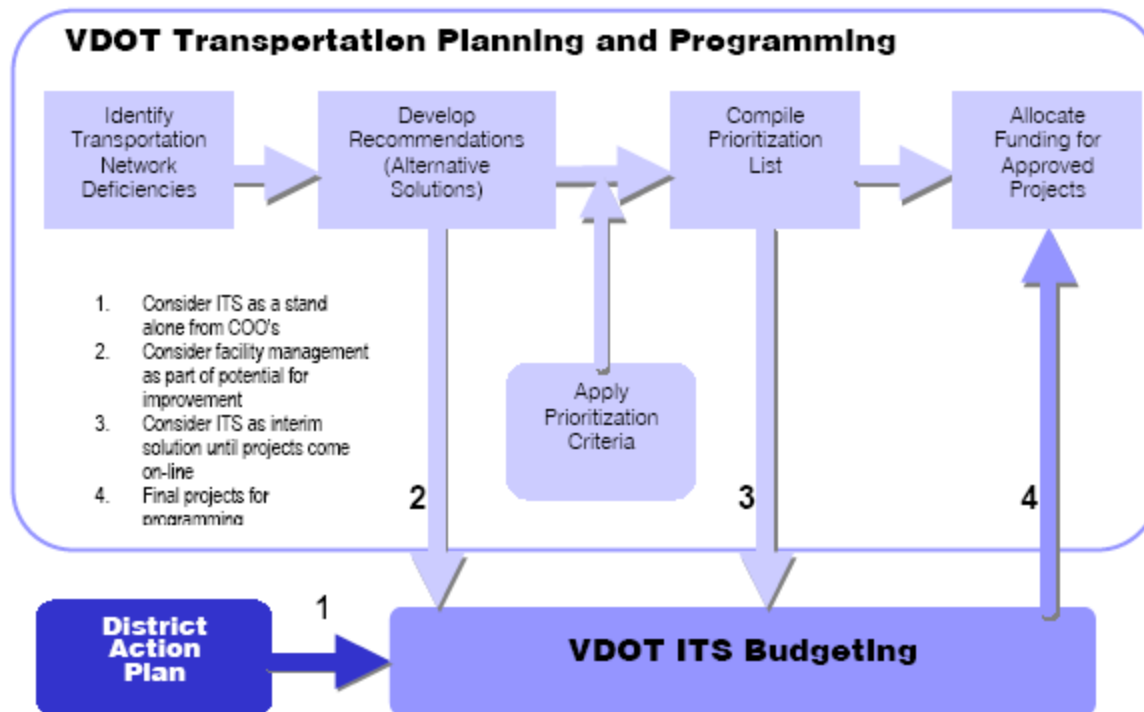


Figure 3-2 VDOT ITS Programming

Washington State

Bill Legg, State ITS Operations Engineer

Email: Leggb@wsdot.wa.gov; phone 360-705-7994.

Bill told us that WSDOT is in the process of some organizational changes that are aimed in part at better integrating ITS into the standard business of the organization including planning, programming, funding, deployment, operations and maintenance.

“WSDOT has six geographical regions which operate relatively autonomously, and to a point, the regions decide what their own needs are, including ITS. Regarding ITS funding, the process has been for the WSDOT Advanced Technology Branch to contact the regional offices to learn which projects they would like funded, compile a list of the projects, and shepherd it through the process. It’s worked well. WSDOT gets the majority of its ITS funds through federal earmarks, and in recent years we’ve been successful in getting the earmarks we wanted and have had a robust program.

“There’s still the question of what happens if the earmarks disappear, and we’ve grown more concerned about that. The process we’ve used generally bypasses some of the more formalized processes of state prioritization and planning, which determines where and how to allocate state dollars.

“We’re beginning an attempt to mainstream ITS with other WSDOT functions. We’re restructuring to have the State Traffic Operations Engineer responsible for statewide ITS planning, programming and budgeting. ITS will become part of his ‘toolbox of solutions,’ so to speak, so ITS will no longer be out there existing as its own entity. As State ITS Operations Engineer, I’ll be involved in the statewide coordination of the operations of ITS systems. This will help us take a better look at ITS performance and see if we’re getting our money’s worth, as we begin to compare ITS deployment, operations and maintenance on the same level as other programs.

“The overall objective, of course, is to have ITS solutions evaluated alongside other solutions by department. The results hopefully will show the overall benefits of ITS in context of the other things we do.”

Research

Integrating Intelligent Transportation Systems Within the Transportation Planning Process: An Interim Handbook

Publication No. FHWA-SA-98-048/; HTV-2/1-98(3M) EW

January 1998

<http://www.fhwa.dot.gov/tfhrc/safety/pubs/its/planning/interimhb.pdf>

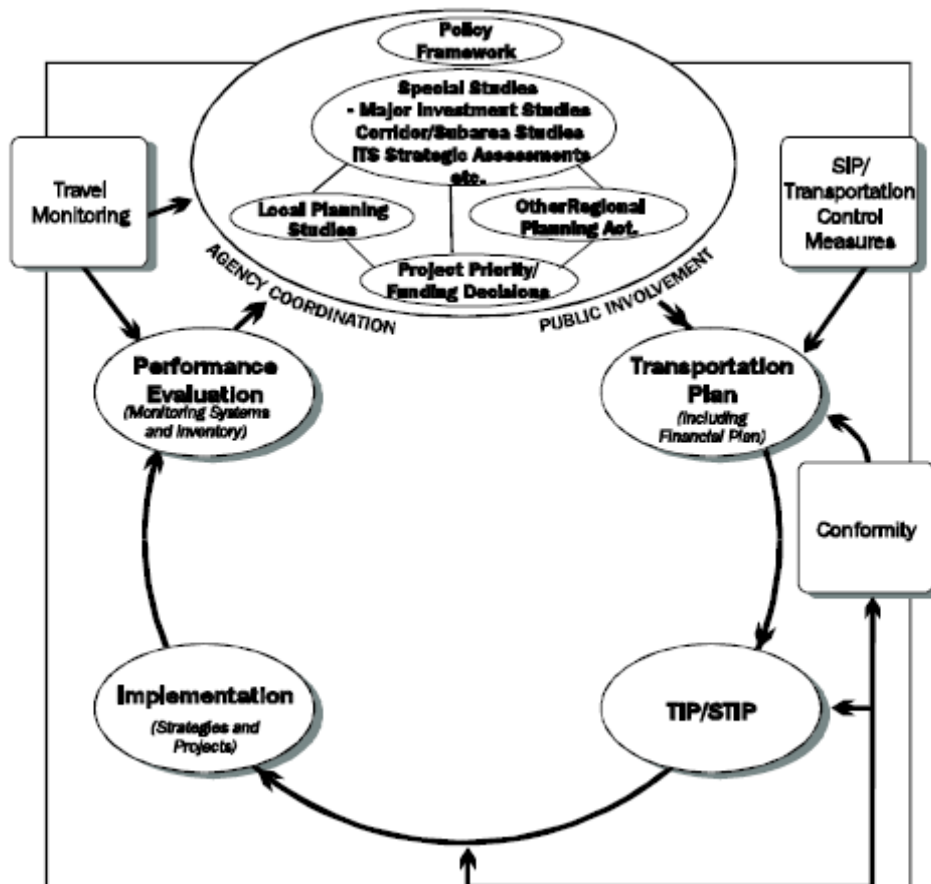
The purposes of the handbook include:

- Identify and describe ways that ITS should be integrated with the mainstream transportation planning process.
- Provide specific guidance and resources in conducting ITS planning associated with metropolitan and statewide transportation plans, major investment studies, other corridor and subarea studies, regionwide strategic assessments of ITS (such as through ITS Early Deployment Planning Studies), and related ITS planning activities.

Content highlights include:

** Flow of the Planning Process (PDF page 23).

Exhibit 2-1 (below) is one depiction of the transportation planning process, indicating that it is iterative and has two primary planning and programming vehicles: the transportation plan and the TIP. ("Implementation" is shown to illustrate its relationship to the planning process.) ITS has a place in virtually every step of the planning process. The transportation planning activities shown at the top of the chart represent multiple activities that feed information to the development of the transportation plan and TIP. There are a number of inter-related planning activities that could take place. The relationship between ITS and the various elements of the planning process shown in the exhibit are described on PDF pages 23 and 25 of the handbook.



** Requirements for the Transportation Plan (PDF page 47).

The Federal regulation on Statewide and Metropolitan Transportation Planning (23 CFR, part 450) specifies requirements for transportation plans. Exhibits 3-1 and 3-2 (pages 48 and 49) indicate those requirements and highlight some of the associated considerations for ITS inclusion into those plans. There are several general observations from those exhibits, including:

- The exhibits can be used as a point of reference for ITS planners in the preparation of material to be included in the transportation plan.
- Although the transportation plan covers a long-term horizon, it also is to include short-term projects and programs. Thus, even short-range ITS actions are appropriate for inclusion in the plan.
- There is substantial emphasis on the inclusion of actions that promote system efficiency. This is one of the strengths of ITS.
- There is significant emphasis on the multi-modal needs of the transportation system, a goal in common with ITS.

** Evaluating ITS Strategies in the Transportation Plan (PDF page 64).

There are three generic approaches to ITS evaluation that are currently available: sketch planning analysis, travel demand modeling and traffic simulation. Exhibit 3-7 (page 65) indicates that the travel demand modeling and sketch planning approaches are appropriate for consideration within the context of the transportation plan.

**Exhibit 3-7. Applicable Analysis Tools for Evaluating ITS Strategies
in the Transportation Plan (highlighted row)**

	Travel Demand Model	Traffic Simulation	Sketch Planning	Emissions Inventory Models	CO Hot Spot Models
Transportation Plan	•		•	•	
Plan and TIP Conformity	•			•	
ITS Strategic Assessment	•		•	•	
Corridor/Subarea Study	•	•	•	•	•
Isolated location		•	•		•

Analytical tools that can adequately examine the benefits of ITS strategies are still in the formative stages. Chapter 6 (page 170) provides an extended discussion of the evaluation of ITS strategies using tools that are typically available to the transportation planning and engineering community. Chapter 6 and Appendix E (page 253) discuss the use of travel demand models for evaluating selected ITS strategies.

Arizona DOT
Group/District - General Information Page
Transportation Technology Group
(FY 2005)

The Transportation Technology Group (TTG) was established in July 1996 in order to create a cohesive body responsible for the planning, development, deployment, management, and operation of new technologies related to the transportation industry. Prior to the establishment of this Group, several technology-related activities were being managed by different organizations. TTG is not responsible for the Department's information resources; this effort is handled by the Information Technology Group (ITG).

Since the creation of TTG, all ITS activities throughout the State have been consolidated within one dedicated group, interfacing with one another, and proceeding toward the same goals and objectives. With a vision focused primarily on the ITS activities throughout the State and close coordination and interaction, this Group continues to plan, develop, deploy, manage, and operate ITS projects to better serve its customers.

ITS is the application of computers, electronics, control systems, communications technologies, and management strategies to transportation systems in an integrated manner, providing travel information to increase the safety and efficiency of the surface transportation systems.

There is no doubt that our reliance on surface transportation systems will continue to grow, resulting in the ever-increasing need to better manage and improve the operations of the existing system. With the emergence of the information age and rapid changes in technology, ITS can help immensely in improving safety, reducing congestion, enhancing mobility, minimizing environmental impact, saving energy, and promoting economic productivity.

ITS can basically be broken down into four areas:

- Urban ITS
- Rural ITS
- ITS for commercial vehicle operations
- Intelligent vehicles

Since September 11th, 2001, there has been a much greater emphasis on transportation security. Last year's strategic plan for Transportation Technology Group included a new goal for homeland security. During the first year, the goal was to better define how homeland security could be implemented at the state and local level. The current focus is on starting to implement some of the recommendations.

The Transportation Technology Group oversaw the development of the ITS mainstreaming plan for commercial vehicle operations. After the completion of the plan, the CVISN Project was transferred to the Motor Vehicle Division. The TTG role has been very minor since the completion of the original plan. As such, the goal to improve commercial vehicle operations has been deleted and the action items have been incorporated into the eight remaining goals.

Nationally, there is a much greater focus on operations of transportation systems. There is recognition that we must have both more roadway capacity, and improved operations of what we currently have. ADOT has been a leader in operations, and the strategic plan for this year represents a continued emphasis on trying to improve operations.

ADOT/ITD Strategic Summary Form

Transportation Technology Group
(FY 2005)

Vision Statement: It is the Transportation Technology Group's vision to be an international leader in Intelligent Transportation Systems (ITS).

Mission Statement: The mission of the Transportation Technology Group is to manage and operate the ADOT transportation system.

Organization Description: The Transportation Technology Group is comprised of five sections: Project Development Section, Control Room Section, Traffic Analysis Section, Information Technology Section, and Administration Section. Currently there are 29 FTE's, 2 limited positions, 2 interns, and a student aid. Funding comes from administrative, maintenance, and construction sources. There are three Orgs: 9060 (administrative), 9064 (construction), and 9068 (maintenance). In addition there are five full time consultants providing IT support and one providing public information.

Core Business Functions:

- Research
- Planning
- Programming
- Design
- Construction
- Systems Integration
- Software development
- Operations
- Maintenance

ADOT/ITD Goal Statements:

Goal 1: To improve the movement of people and products throughout Arizona.

Goal 2: To increase the quality, timeliness and cost effectiveness of our products and services.

Goal 3: To develop and retain a high performing, successful workforce.

Goal 4: To optimize the use of all resources.

Goal 5: To improve public and political support necessary to meet Arizona's transportation needs.

Transportation Technology Group Goals:

Goal 1: Assist in maintaining the security and safety of the public.

Goal 2: Reduce congestion in urban areas.

Goal 3: Provide statewide incident management.

Goal 4: Provide quality and timely information to the public.

Goal 5: Design, construct, and implement quality ITS projects in a timely manner.

Goal 6: Develop and retain a high performing, successful workforce.

Goal 7: Support, maintain, and operate ITS infrastructure.

Goal 8: Improve public and political support.

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 1																											
ADOT/ITD Goal # and Statement: Goal 1 – To improve the movement of people and products throughout Arizona.																																			
Organization Unit Goal # and Statement: 1 – Assist in maintaining the security and safety of the public.																																			
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Support Arizona's plan for homeland security 																																			
<u>Objective (s) for the Listed Goal:</u> 1.1. For FY 2005, increase the number of surveillance devices on the state highway system.																																			
<u>Performance Measurement Description (s and Type (s)):</u> Input, Output, Outcome, Efficiency or Quality																																			
Type	<u>Performance Measure</u>	FY2003 Expected	FY2004 Expected	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected																											
OP	# of surveillance systems for State Highway System	E = 120 A = 139	E = 140 A = 168	168	180	200	220	240																											
OP	# of Amber Alert Messages	E = 2 A = 1	E = 5 A = 9	12	12	12	12	12																											
<u>Custodian of data and where kept:</u> Manny Agah																																			
<u>Action Plan Steps and Owners:</u> Sponsor = Tim Wolfe <div style="float: right; text-align: right;">Key Owners = Manny Agah</div>																																			
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 60%;"><u>Steps:</u></th> <th style="text-align: left; width: 20%;"><u>Person</u></th> <th style="text-align: left; width: 20%;"><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>1. Participate in ADOT Homeland Security Task Force</td> <td>Tim Wolfe</td> <td>completed</td> </tr> <tr> <td>2. Participate in Public Safety Communications Commission</td> <td>Tim Wolfe</td> <td>completed</td> </tr> <tr> <td>3. Participate in HS Communications Subcommittee</td> <td>Tim Wolfe</td> <td>completed</td> </tr> <tr> <td>4. Complete AMBER Alert Planning Grant</td> <td>Tim Wolfe</td> <td>completed</td> </tr> <tr> <td>5. Upgrade EOC (monitors, phones, etc)</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>6. Develop PA for alternate TOC</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>7. Provide training for netspoke</td> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>8. Create project for AMBER Alert implementation</td> <td>Tim Wolfe</td> <td>completed</td> </tr> </tbody> </table>									<u>Steps:</u>	<u>Person</u>	<u>Date</u>	1. Participate in ADOT Homeland Security Task Force	Tim Wolfe	completed	2. Participate in Public Safety Communications Commission	Tim Wolfe	completed	3. Participate in HS Communications Subcommittee	Tim Wolfe	completed	4. Complete AMBER Alert Planning Grant	Tim Wolfe	completed	5. Upgrade EOC (monitors, phones, etc)	Manny Agah	completed	6. Develop PA for alternate TOC	Manny Agah	completed	7. Provide training for netspoke	Darrell Bingham	completed	8. Create project for AMBER Alert implementation	Tim Wolfe	completed
<u>Steps:</u>	<u>Person</u>	<u>Date</u>																																	
1. Participate in ADOT Homeland Security Task Force	Tim Wolfe	completed																																	
2. Participate in Public Safety Communications Commission	Tim Wolfe	completed																																	
3. Participate in HS Communications Subcommittee	Tim Wolfe	completed																																	
4. Complete AMBER Alert Planning Grant	Tim Wolfe	completed																																	
5. Upgrade EOC (monitors, phones, etc)	Manny Agah	completed																																	
6. Develop PA for alternate TOC	Manny Agah	completed																																	
7. Provide training for netspoke	Darrell Bingham	completed																																	
8. Create project for AMBER Alert implementation	Tim Wolfe	completed																																	
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> No unfunded cost identified																																			

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 1																									
ADOT/ITD Goal # and Statement: Goal 1 – To improve the movement of people and products throughout Arizona.																																	
Organization Unit Goal # and Statement: 2 – Reduce congestion in urban areas																																	
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Connect ADOT operated signals to a central signal system. 																																	
<u>Objective (s) for the Listed Goal:</u> <p>2.1. For FY 2005, connect 5% of the ADOT signals to a central system.</p> <p>2.2. For FY 2005, operate 60% of the Phoenix freeways, which are under Freeway Management, at a level 'D' or better during rush hour.</p>																																	
<u>Performance Measurement Description (s and Type (s):</u> Input, Output, Outcome, Efficiency or Quality																																	
Type	Performance Measure	FY2003 Expected Actual	FY2004 Expected Actual	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected																									
IN	ADOT signals on central system (Manny)	E = 11 A = 11	E = 15 A = 11	20	30	40	50	50																									
OC	Average % of Phx. Freeways reaching level of service 'E' or 'F' on weekdays (Manny)	E = 40% A = 42%	E = 40% A = 45%	40%	40%	40%	40%	40%																									
OP	Miles of Phx. Freeway Mgmt. Systems (Pankaj)	E = 74 A = 73	E = 83 A = 87	87	87	87	95	95																									
<u>Custodian of data and where kept:</u> (see above)																																	
<u>Action Plan Steps and Owners:</u> Sponsor = Tim Wolfe <div style="text-align: right; margin-top: 10px;">Key Owners = Tim Wolfe</div>																																	
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 60%;"><u>Steps:</u></th> <th style="text-align: left; width: 20%;"><u>Person</u></th> <th style="text-align: left; width: 20%;"><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>1. Complete the field comm. for additional 35 TIs in Phx.</td> <td>Manny Agah</td> <td>deleted</td> </tr> <tr> <td>2. Participate in TMC Pooled-Fund Study annual meeting</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>3. Participate in Enterprise PFS</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>4. Develop project scope for replacing 179 controllers</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>5. Initiate ramp metering subsystem using i2 software</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>6. Participate in SPR 557, Railroad Highway Crossing TAC</td> <td>Tim Wolfe</td> <td>completed</td> </tr> <tr> <td style="padding-top: 10px;">Develop a plan to link multiple signal systems in Phoenix Metro Region</td> <td style="padding-top: 10px;">Manny Agah</td> <td style="padding-top: 10px;">future</td> </tr> </tbody> </table>										<u>Steps:</u>	<u>Person</u>	<u>Date</u>	1. Complete the field comm. for additional 35 TIs in Phx.	Manny Agah	deleted	2. Participate in TMC Pooled-Fund Study annual meeting	Manny Agah	completed	3. Participate in Enterprise PFS	Manny Agah	completed	4. Develop project scope for replacing 179 controllers	Manny Agah	completed	5. Initiate ramp metering subsystem using i2 software	Manny Agah	completed	6. Participate in SPR 557, Railroad Highway Crossing TAC	Tim Wolfe	completed	Develop a plan to link multiple signal systems in Phoenix Metro Region	Manny Agah	future
<u>Steps:</u>	<u>Person</u>	<u>Date</u>																															
1. Complete the field comm. for additional 35 TIs in Phx.	Manny Agah	deleted																															
2. Participate in TMC Pooled-Fund Study annual meeting	Manny Agah	completed																															
3. Participate in Enterprise PFS	Manny Agah	completed																															
4. Develop project scope for replacing 179 controllers	Manny Agah	completed																															
5. Initiate ramp metering subsystem using i2 software	Manny Agah	completed																															
6. Participate in SPR 557, Railroad Highway Crossing TAC	Tim Wolfe	completed																															
Develop a plan to link multiple signal systems in Phoenix Metro Region	Manny Agah	future																															
<u>Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> no unfunded cost identified																																	

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group						ITD Goal 1																																																
ADOT/ITD Goal # and Statement: Goal 1 – To improve the movement of people and products throughout Arizona.																																																						
Organization Unit Goal # and Statement: 3 – Provide statewide incident management.																																																						
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Continue to improve incident management procedures at Traffic Operations Center. Replace pagers and upgrade ADOT's pager system. 																																																						
<u>Objective (s) for the Listed Goal:</u> 3.1. For FY 2005, to provide incident management acknowledgement, response, and closure times of 10, 30, and 120 minutes respectively, in Phoenix, and 15, 60, and 120 minutes in other areas.																																																						
<u>Performance Measurement Description (s and Type (s):</u> Input, Output, Outcome, Efficiency or Quality																																																						
Type	Performance Measure	FY2003 Expected Actual	FY2004 Expected	FY2005 Expected	FY2006 Expected	FY2007 Expected																																																
IN	Number of incidents entered in system (Manny)	E = 10,000 A = 10,861	E = 10,000 A = 12,759	13,000	14,000	15,000																																																
QU	% of time TOC has two Operators on duty (Linda)	E = 100% A = 99%	E = 100% A = 99.5%	100%	100%	100%																																																
QU	Average Acknowledgement time urban – 10 min. (Manny)	E = 10 A = 5	E = 10 A = 6	10	10	10																																																
QU	Average response time urban – 30 min. (Manny)	E = 30 A = 24	E = 30 A = 24	30	30	30																																																
QU	Average closure time urban – 120 min. (Manny)	E = 120 A = 180	E = 120 A = 164	120	120	120																																																
QU	Average Acknowledgement time rural – 15 min (Manny)	E = 15 A = 4	E = 15 A = 7	15	15	15																																																
QU	Average response time rural – 60 min. (Manny)	E = 60 A = 26	E = 60 A = 29	60	60	60																																																
QU	Average closure time rural – 120 min. (Manny)	E = 120 A = 210	E = 120 A = 180	120	120	120																																																
IN	Level 1 incidents entered in IM log (Manny)	E = 120 A = 560	E = 500 A = 809	800	800	800																																																
<u>Custodian of data and where kept:</u> Manny Agah																																																						
<u>Action Plan Steps and Owners:</u> Sponsor = Tim Wolfe <div style="float: right; text-align: right;">Key Owners = Manny Agah</div>																																																						
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 60%;"><u>Steps:</u></th> <th style="text-align: left; width: 20%;"><u>Person</u></th> <th style="text-align: left; width: 20%;"><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>1. Update FMS database for completed auxiliary lanes</td> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>2. Move Web Gate (paging) software administration to backroom</td> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>3. Create IM screen in HCRS</td> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>4. Automate IM reporting</td> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>5. Add performance measure for "one lane open to traffic"</td> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>6. Oversee ER Link in Tucson</td> <td>Pankaj Gupte</td> <td>completed</td> </tr> <tr> <td>7. Complete the AzTech CADD/AVL project with DPS (focus area 3)</td> <td>Debra Barker</td> <td>delayed</td> </tr> <tr> <td>8. Establish 3 limited operator positions</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>9. Create background investigation process</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>10. Support Aztech implementation of Camera Cameleon</td> <td>Manny Agah</td> <td>completed</td> </tr> <tr> <td>11. Reclassify operators</td> <td>Tim Wolfe</td> <td>completed</td> </tr> <tr> <td>12. Establish regular meetings with DPS dispatchers</td> <td>Linda Anastasi</td> <td>completed</td> </tr> <tr> <td>13. Create performance testing for future operators</td> <td>Linda Anastasi</td> <td>completed</td> </tr> <tr> <td>14. Establish PAG Operators Committee</td> <td>Linda Anastasi</td> <td>completed</td> </tr> <tr> <td>15. Establish MAG Operators Committee</td> <td>Linda Anastasi</td> <td>completed</td> </tr> </tbody> </table>							<u>Steps:</u>	<u>Person</u>	<u>Date</u>	1. Update FMS database for completed auxiliary lanes	Darrell Bingham	completed	2. Move Web Gate (paging) software administration to backroom	Darrell Bingham	completed	3. Create IM screen in HCRS	Darrell Bingham	completed	4. Automate IM reporting	Darrell Bingham	completed	5. Add performance measure for "one lane open to traffic"	Darrell Bingham	completed	6. Oversee ER Link in Tucson	Pankaj Gupte	completed	7. Complete the AzTech CADD/AVL project with DPS (focus area 3)	Debra Barker	delayed	8. Establish 3 limited operator positions	Tricia Lindley	completed	9. Create background investigation process	Tricia Lindley	completed	10. Support Aztech implementation of Camera Cameleon	Manny Agah	completed	11. Reclassify operators	Tim Wolfe	completed	12. Establish regular meetings with DPS dispatchers	Linda Anastasi	completed	13. Create performance testing for future operators	Linda Anastasi	completed	14. Establish PAG Operators Committee	Linda Anastasi	completed	15. Establish MAG Operators Committee	Linda Anastasi	completed
<u>Steps:</u>	<u>Person</u>	<u>Date</u>																																																				
1. Update FMS database for completed auxiliary lanes	Darrell Bingham	completed																																																				
2. Move Web Gate (paging) software administration to backroom	Darrell Bingham	completed																																																				
3. Create IM screen in HCRS	Darrell Bingham	completed																																																				
4. Automate IM reporting	Darrell Bingham	completed																																																				
5. Add performance measure for "one lane open to traffic"	Darrell Bingham	completed																																																				
6. Oversee ER Link in Tucson	Pankaj Gupte	completed																																																				
7. Complete the AzTech CADD/AVL project with DPS (focus area 3)	Debra Barker	delayed																																																				
8. Establish 3 limited operator positions	Tricia Lindley	completed																																																				
9. Create background investigation process	Tricia Lindley	completed																																																				
10. Support Aztech implementation of Camera Cameleon	Manny Agah	completed																																																				
11. Reclassify operators	Tim Wolfe	completed																																																				
12. Establish regular meetings with DPS dispatchers	Linda Anastasi	completed																																																				
13. Create performance testing for future operators	Linda Anastasi	completed																																																				
14. Establish PAG Operators Committee	Linda Anastasi	completed																																																				
15. Establish MAG Operators Committee	Linda Anastasi	completed																																																				
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> two positions must be double filled.																																																						

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 2																
ADOT/ITD Goal # and Statement: Goal 2 – To increase the quality, timeliness and cost effectiveness of our products and services.																								
Organization Unit Goal # and Statement: 4 – Provide quality and timely information to the public.																								
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Continue to improve traveler information systems. 																								
<u>Objective (s) for the Listed Goal:</u> <p>5.1. For FY 2005, make real time traveler information available, at least 95% of the time, to the public through kiosk, phone, Internet, variable message signs, public TV, and radio.</p>																								
<u>Performance Measurement Description (s and Type (s):</u> Input, Output, Outcome, Efficiency or Quality																								
Type	Performance Measure	FY2003 Expected Actual	FY2004 Expected Actual	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected																
OP	Number of hits on AZ511.COM (Darrell)	E = 24M A=54.5M	E = 60M A=98.7M	120-M	130M	140M	150M	160M																
OP	Number of calls to 511 (Darrell)	E=200k A = 390k	E=300k A = 509k	1M	1.2M	1.4M	1.6M	1.8M																
OP	Number of entries into HCRS (Darrell)	E = 18k A=11.4k	E = 12k A= 16.2k	18,000	20,000	20,000	20,000	20,000																
EF	Sites with HCRS (Darrell)	E = 140 A = 63	E = 100 A = 72	100	100	100	100	100																
OP	Number of messages placed on message signs (Linda)	E = 5k A = 7048	E = 8k A=13668	14,000	15,000	16,000	17,000	18,000																
OP	Number of VMS statewide (Pankaj)	E = 100 A = 105	E = 109 A =109	113	117	121	125	129																
<u>Custodian of data and where kept:</u> (see above)																								
<u>Action Plan Steps and Owners:</u>																								
Sponsor = Tim Wolfe				Key Owners = Manny Agah																				
<u>Steps:</u>				<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; width: 60%;"><u>Person</u></th> <th style="text-align: left;"><u>Date</u></th> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> <tr> <td>Darrell Bingham</td> <td>completed</td> </tr> </table>					<u>Person</u>	<u>Date</u>	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed
<u>Person</u>	<u>Date</u>																							
Darrell Bingham	completed																							
Darrell Bingham	completed																							
Darrell Bingham	completed																							
Darrell Bingham	completed																							
Darrell Bingham	completed																							
Darrell Bingham	completed																							
Darrell Bingham	completed																							
1.	Develop statewide wall display																							
2.	Enhance transit information in 511																							
3.	Enhance weather information in 511																							
4.	Replace control room projectors																							
5.	Add Tucson cameras to AZ511.com																							
6.	Create a weekend closure map within AZ511.com																							
7.	Establish new maps for AZ511.com (cities and quads)																							
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> Step #8 will involve additional personnel cost.																								

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 2																																						
ADOT/ITD Goal # and Statement: Goal 2 – To increase the quality, timeliness and cost effectiveness of our products and services.																																														
Organization Unit Goal # and Statement: 5 – Design and construct quality ITS projects in a timely manner.																																														
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Start designs earlier so that projects can be bid on time. 																																														
<u>Objective (s) for the Listed Goal:</u> 6.1. For FY 2005, award 90% of the ITS projects, and dollars, programmed in the fiscal year.																																														
<u>Performance Measurement Description (s and Type (s): Input, Output, Outcome, Efficiency or Quality</u>																																														
Type	<u>Performance Measure</u>	FY2003 Expected Actual	FY2004 Expected	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected																																						
OP	Percentage of ITS projects advertised vs. planned	E = 90% A = 100%	E = 90% A = 50%	90%	90%	90%	90%	90%																																						
OP	% of ITS project dollars committed vs. planned	E = 90% A = ?%	E = 90% A = ?%	90%	90%	90%	90%	90%																																						
<u>Custodian of data and where kept:</u> Pankaj Gupte																																														
<u>Action Plan Steps and Owners:</u> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Sponsor = Tim Wolfe</p> <p><u>Steps:</u></p> <ol style="list-style-type: none"> 1. Design Regional Comm Network (Aztech Focus Area #2) 2. Design partial FMS Phase 9 3. Design partial FMS Phase 10 4. Design partial FMS Phase 11 5. Design full FMS Phase 12 6. Design Tucson FMS Phase 2B 7. Design ramp meter phase 5 8. Advertise Rural Phase 5B 9. Advertise Rural Phase 6 10. Advertise AzTech Connectivity (Focus Area #1) 11. Advertise roadside signs for 511 12. Construction support for Rural Phase 5B 13. Construction support for Rural Phase 6 14. Construction support for AzTech Connectivity (Focus Area #1) 15. Construction support for roadside signs for 511 16. Construction support for ramp meter phase 4 17. Develop Scoping document for projects in Phase 1 MAG RTP 18. Close out systems integration projects more than 1 yr past const. 19. Hire 3 full time PMs 20. Manage construction budget to within 2% of authorized </div> <div style="width: 45%; text-align: right;"> <p>Key Owners = Pankaj Gupte</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;"><u>Person</u></th> <th style="text-align: left; padding: 5px;"><u>Date</u></th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Debra Barker</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Debra Barker</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Debra Barker</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Debra Barker</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">completed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">completed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">completed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Pankaj Gupte</td><td style="padding: 5px;">completed</td></tr> <tr><td style="padding: 5px;">Debra Barker</td><td style="padding: 5px;">completed</td></tr> <tr><td style="padding: 5px;">Manny Agah</td><td style="padding: 5px;">completed</td></tr> <tr><td style="padding: 5px;">Tim Wolfe</td><td style="padding: 5px;">delayed</td></tr> <tr><td style="padding: 5px;">Tricia Lindley</td><td style="padding: 5px;">no</td></tr> </tbody> </table> </div> </div>									<u>Person</u>	<u>Date</u>	Pankaj Gupte	delayed	Debra Barker	delayed	Debra Barker	delayed	Debra Barker	delayed	Debra Barker	delayed	Pankaj Gupte	delayed	Pankaj Gupte	completed	Pankaj Gupte	completed	Pankaj Gupte	delayed	Pankaj Gupte	completed	Pankaj Gupte	delayed	Pankaj Gupte	delayed	Pankaj Gupte	delayed	Pankaj Gupte	completed	Debra Barker	completed	Manny Agah	completed	Tim Wolfe	delayed	Tricia Lindley	no
<u>Person</u>	<u>Date</u>																																													
Pankaj Gupte	delayed																																													
Debra Barker	delayed																																													
Debra Barker	delayed																																													
Debra Barker	delayed																																													
Debra Barker	delayed																																													
Pankaj Gupte	delayed																																													
Pankaj Gupte	completed																																													
Pankaj Gupte	completed																																													
Pankaj Gupte	delayed																																													
Pankaj Gupte	completed																																													
Pankaj Gupte	delayed																																													
Pankaj Gupte	delayed																																													
Pankaj Gupte	delayed																																													
Pankaj Gupte	completed																																													
Debra Barker	completed																																													
Manny Agah	completed																																													
Tim Wolfe	delayed																																													
Tricia Lindley	no																																													
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> no unfunded cost																																														

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 3																					
ADOT/ITD Goal # and Statement: Goal 3 – To develop and retain a high performing successful workforce																													
Organization Unit Goal # and Statement: 6 – Develop and retain a high performing successful workforce																													
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Insure all employees have signed up for mandatory training. Continue to emphasize safety at each monthly group meeting. 																													
<u>Objective (s) for the Listed Goal:</u> <p>7.1. For FY 2005, complete 90% of mandatory supervisory and employee training.</p> <p>7.2. For FY 2005, maintain safety rate of one accident or less.</p> <p>7.3. For FY 2005 ensure that 95% of all employees who have been with ITD over 12 months receive 32 hours of work-related training.</p>																													
<u>Performance Measurement Description (s and Type (s):</u> Input, Output, Outcome, Efficiency or Quality																													
Type	Performance Measure	FY2003 Expected Actual	FY2004 Expected	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected																					
OP	% of mandatory employee training	E = 90% A = 91%	E = 90% A = 95%	90%	90%	90%	90%	90%																					
OP	% of mandatory supervisor training	E = 90% A = 90%	E = 90% A = 85%	90%	90%	90%	90%	90%																					
QU	Years of experience with ADOT	E = 8 A = 7.7	E = 8 A = 8.5	9	10	10	10	10																					
QU	Employees leaving group/total positions	E = 10% A = 15%	E = 10% A = 22%	10%	10%	10%	10%	10%																					
OP	% of Employees with at least 32 hours of training	E = 95% A = 81%	E = 95% A = 51%	95%	95%	95%	95%	95%																					
IP	# of injuries	E = 1 A = 0	E = 1 A = 1	1	1	1	1	1																					
<u>Custodian of data and where kept:</u> Tricia Lindley																													
<u>Action Plan Steps and Owners:</u> <div style="display: flex; justify-content: space-between;"> <div> Sponsor = Tim Wolfe </div> <div> Key Owners = Tricia Lindley </div> </div> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Steps:</th> <th style="text-align: left;"><u>Person</u></th> <th style="text-align: left;"><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>1. Ensure all employees have signed up for all mandatory classes</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>2. Ensure all supervisors have signed up for all mandatory classes</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>3. Ensure all employees have 32 hours of training</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>4. Discuss safety at each monthly group meeting</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>5. Review monthly industrial injury reports.</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>6. Provide scanning tour of other state TOC's</td> <td>Tricia Lindley</td> <td>delayed</td> </tr> </tbody> </table>									Steps:	<u>Person</u>	<u>Date</u>	1. Ensure all employees have signed up for all mandatory classes	Tricia Lindley	completed	2. Ensure all supervisors have signed up for all mandatory classes	Tricia Lindley	completed	3. Ensure all employees have 32 hours of training	Tricia Lindley	completed	4. Discuss safety at each monthly group meeting	Tricia Lindley	completed	5. Review monthly industrial injury reports.	Tricia Lindley	completed	6. Provide scanning tour of other state TOC's	Tricia Lindley	delayed
Steps:	<u>Person</u>	<u>Date</u>																											
1. Ensure all employees have signed up for all mandatory classes	Tricia Lindley	completed																											
2. Ensure all supervisors have signed up for all mandatory classes	Tricia Lindley	completed																											
3. Ensure all employees have 32 hours of training	Tricia Lindley	completed																											
4. Discuss safety at each monthly group meeting	Tricia Lindley	completed																											
5. Review monthly industrial injury reports.	Tricia Lindley	completed																											
6. Provide scanning tour of other state TOC's	Tricia Lindley	delayed																											
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> no unfunded cost identified																													

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 4																								
ADOT/ITD Goal # and Statement: Goal 4 – To optimize the use of all resources.																																
Organization Unit Goal # and Statement: 7 – Support, maintain, and operate ITS infrastructure.																																
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Continue to improve the information technology resources for ADOT'S Traffic Operations Center. 																																
<u>Objective (s) for the Listed Goal:</u> 8.1. For FY 2005, ensure that systems are available at least 95% of the time.																																
<u>Performance Measurement Description (s and Type (s):</u> Input, Output, Outcome, Efficiency or Quality																																
Type	<u>Performance Measure</u>	FY2003 Expected Actual	FY2004 Expected	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected																								
QU	Availability of FMS System	E = 95% A=97.6%	E = 95% A=97.2%	95%	95%	95%	95%	95%																								
QU	Availability of HCRS System	E = n/a A=98.9%	E = 95% A=97.9%	95%	95%	95%	95%	95%																								
QU	PC System availability	E = 95% A=99.9%	E = 95% A=99.7%	95%	95%	95%	95%	95%																								
QU	% of Phoenix VMS available	N/a	E = 95% A=88.5%	95%	95%	95%	95%	95%																								
QU	% of Phx surveillance devices responding	E = 95% A=86%	E = 95% A=69.9%	95%	95%	95%	95%	95%																								
QU	% of Phx CCTV available	N/a	E = 95% A=72.8%	95%	95%	95%	95%	95%																								
QU	% of statewide VMS available	N/a	E = 95% A=72.7%	95%	95%	95%	95%	95%																								
QU	% of statewide CCTV available	N/a	E = 95% A=80.1%	95%	95%	95%	95%	95%																								
QU	% of statewide RWIS available	N/a	E = 95% A=34.7%	95%	95%	95%	95%	95%																								
QU	% of time 511 available	E = 95% A=97.8%	E = 95% A=99.3%	95%	95%	95%	95%	95%																								
<u>Custodian of data and where kept:</u> Darrell Bingham																																
<u>Action Plan Steps and Owners:</u> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Sponsor = Tim Wolfe</p> <p><u>Steps:</u></p> <ol style="list-style-type: none"> 1. Complete certification for operators with more than 1 year at TOC 2. Complete shift supervisor certification for all supervisors 3. Manage maintenance budget to within 2% of authorized 4. Manage administrative budget to within 2% of authorized 5. Revamp communication/server rooms 6. Update all info tech PDQ's 7. Upgrade system to Unix version 9 8. Create block diagram of network 9. Install initial wireless network 10. Establish maintenance agreement with System Innovation 11. Establish maintenance technician with FDS </div> <div style="width: 45%; text-align: right;"> <p>Key Owners = Manny Agah</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 60%;"><u>Person</u></th> <th style="text-align: left;"><u>Date</u></th> </tr> </thead> <tbody> <tr><td>Linda Anastasi</td><td>completed</td></tr> <tr><td>Linda Anastasi</td><td>completed</td></tr> <tr><td>Tricia Lindley</td><td>completed</td></tr> <tr><td>Tricia Lindley</td><td>completed</td></tr> <tr><td>Darrell Bingham</td><td>completed</td></tr> <tr><td>Darrell Bingham</td><td>completed</td></tr> <tr><td>Darrell Bingham</td><td>completed</td></tr> <tr><td>Darrell Bingham</td><td>completed</td></tr> <tr><td>Darrell Bingham</td><td>completed</td></tr> <tr><td>Tim Wolfe</td><td>completed</td></tr> <tr><td>Manny Agah</td><td>completed</td></tr> </tbody> </table> </div> </div>									<u>Person</u>	<u>Date</u>	Linda Anastasi	completed	Linda Anastasi	completed	Tricia Lindley	completed	Tricia Lindley	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Darrell Bingham	completed	Tim Wolfe	completed	Manny Agah	completed
<u>Person</u>	<u>Date</u>																															
Linda Anastasi	completed																															
Linda Anastasi	completed																															
Tricia Lindley	completed																															
Tricia Lindley	completed																															
Darrell Bingham	completed																															
Darrell Bingham	completed																															
Darrell Bingham	completed																															
Darrell Bingham	completed																															
Darrell Bingham	completed																															
Tim Wolfe	completed																															
Manny Agah	completed																															
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> no unfunded cost identified																																

ADOT/ITD Strategic Action Plan

(FY2005)

<u>Organization Unit Name:</u> Transportation Technology Group								ITD Goal 5												
ADOT/ITD Goal # and Statement: Goal 5 – To improve public and political support necessary to meet Arizona’s transportation needs.																				
Organization Unit Goal # and Statement: 8 – Improve public and political support.																				
<u>Strategies to attain Goal (FY 2005):</u> <ul style="list-style-type: none"> Provide tours of ADOT’s Traffic Operations Center Respond promptly to constituent request 																				
<u>Objective (s) for the Listed Goal:</u> 9.1. For FY 2005, provide tours of the TOC for 500 people. 9.2. For FY 2005, respond to constituent inquiries within 10 working days no less than 95% of the time.																				
<u>Performance Measurement Description (s and Type (s):</u> Input, Output, Outcome, Efficiency or Quality																				
Type	<u>Performance Measure</u>	FY2003 Expected Actual	FY2004 Expected	FY2005 Expected	FY2006 Expected	FY2007 Expected	FY2008 Expected	FY2009 Expected												
OP	People attending TOC tours	E =2,000 A=516	E =2,000 A=69	E=500 A=2,708	500	500	500	500												
QU	# of 511 comments	E = n/a A=814	E = 1000 A=1319	E=1000 A=817	1000	1000	1000	1000												
QU	% of responses within 10 days to constituents	E = 95% A=97%	E = 95% A=98%	E=95% A=100%	95%	95%	95%	95%												
<u>Custodian of data and where kept:</u> Tricia Lindley																				
<u>Action Plan Steps and Owners:</u> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Sponsor = Tim Wolfe </div> <div style="width: 45%;"> Key Owners = Tricia Lindley </div> </div> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 60%;"><u>Steps:</u></th> <th style="text-align: left; width: 20%;"><u>Person</u></th> <th style="text-align: left; width: 20%;"><u>Date</u></th> </tr> </thead> <tbody> <tr> <td>1. Hold I40 Coalition Meeting</td> <td>Tricia Lindley</td> <td>completed</td> </tr> <tr> <td>2. Update TOC brochure</td> <td>Tricia Lindley</td> <td>delayed</td> </tr> <tr> <td>3. Hire PIO</td> <td>Tricia Lindley</td> <td>completed</td> </tr> </tbody> </table>									<u>Steps:</u>	<u>Person</u>	<u>Date</u>	1. Hold I40 Coalition Meeting	Tricia Lindley	completed	2. Update TOC brochure	Tricia Lindley	delayed	3. Hire PIO	Tricia Lindley	completed
<u>Steps:</u>	<u>Person</u>	<u>Date</u>																		
1. Hold I40 Coalition Meeting	Tricia Lindley	completed																		
2. Update TOC brochure	Tricia Lindley	delayed																		
3. Hire PIO	Tricia Lindley	completed																		
<u>Enter Costs – Additional Resources needed to meet the Goal/ Objective (FY 2005 only):</u> no unfunded cost identified																				

Summary of Action Items for FY2005

Goal	Action Items	Completed	Delayed
1	8	8	
2	5	5	
3	15	14	1
4	7	7	
5	20	6	14
6	6	5	1
7	11	11	0
8	3	2	1
Total	75	58	17

Note: action items do not include future or deleted items.

Name	Action Items	Completed	Delayed	% completed
Tim	9	8	1	89
Manny	9	9		100
Linda	6	6		100
Darrell	18	18	0	100
Debra	6	1	5	17
Pankaj	13	5	8	38
Tricia	14	11	3	79
Total	75	58	17	77

Note: action items do not include future or deleted items.